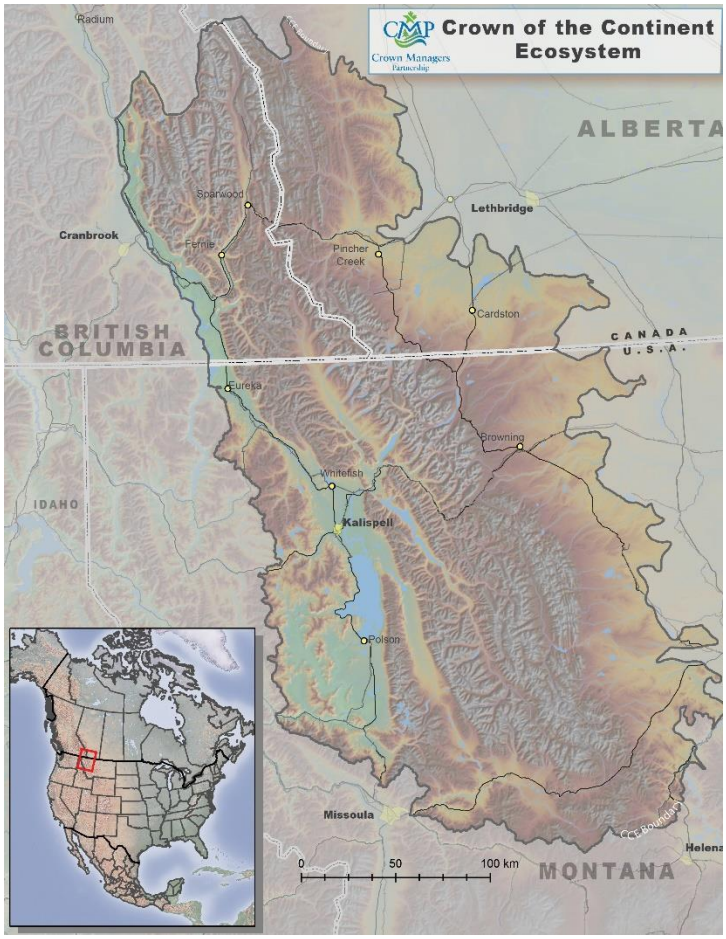
The Crown Adaptation Partnership:
Advancing Collaborative Climate Change Adaptation through Innovative Partnerships

BACKGROUND

Climate change adaptation is the process of developing and implementing strategies to moderate, cope with, or take advantage of the consequences of climate change. Effectively anticipating and responding to future change is challenging, however, and requires a commitment to active learning and adaptive management. To facilitate shared learning, leverage existing capacity, and test new approaches to conservation and natural resource management in an era of rapid climatic shifts, an innovative partnership between public land management agencies, environmental non-governmental organizations, tribes and First Nations and interested academic researchers is underway in the US-Canada transboundary region called the Crown of the Continent.

FOCAL LANDSCAPE

The Crown of the Continent Ecosystem (CCE) spans 72,000 km^2 along the shared Rocky Mountain region of Montana, British Columbia and Alberta. With no known wildlife extinctions, and containing rivers that drain to three ocean basins, the CCE is one of North America's most ecologically diverse and intact landscapes. It is anchored by the Waterton-Glacier International Peace Park and extensive adjoining tracts of publically-managed lands in both Canada and the U.S.



KEY PARTNERS

The Crown Adaptation Partnership (CAP) was launched in 2014 to expedite multi-jurisdictional action on issues of shared concern related to climate change adaptation. Led by the Crown Managers Partnership (a transboundary collaborative entity comprised of land management agencies), the Crown Conservation Initiative (a collaborative entity comprised of environmental NGOs and academic researchers), The Wilderness Society, and the Northern Rockies region of the U.S. Forest Service, CAP brings together managers and stakeholders across all jurisdictions to establish shared understanding of climate change threats, identify effective climate change adaptation strategies, catalyze management action, and enhance shared learning through an adaptive management approach.

PRIORITIES

The Crown Adaptation Partnership hosted a March, 2014 workshop at which collaborators identified five climate adaptation priority areas of concern. A short summary of ongoing work related to each of these five priorities follows:

- Saving cold-adapted native salmonid populations: The CCE is a stronghold for native bull trout and westslope cutthroat trout, but these species face significant challenges due to warming stream temperatures that will both reduce suitable habitat and potentially favor non-native species that hybridize and compete with native salmonids. A November, 2014 workshop identified nine priority climate adaptation strategies and potential pilot projects across the CCE, including securing likely climate refugia, re-establishing westslope cutthroat populations east of the Continental Divide to enhance population resilience, and developing collaborative approaches to identify conservation populations and to address non-native species management.
- Battling noxious weeds: Noxious (invasive) weeds can outcompete native species, which can disrupt ecosystems, leading to a loss of biodiversity. A May, 2015 workshop introduced maps of current and future noxious weed invasions, highlighting species that may pose increasing threats under climate change, as well as how distributions of noxious weeds across jurisdictions might change. The outcomes of the workshop focused on developing common approaches for early detection, and learning networks to increase understanding of treatment effectiveness for particular weed species.
- Restoring Five-needle Pine Species: Whitebark and limber pine forests have declined significantly due to an invasive pathogen and pine beetle epidemics, and climate change may exacerbate these stresses and speed the decline. A March 2016 workshop will focus on forming a CCE-wide working group that will identify the type and amount of restoration needed to maintain these forests in an era of shifting climate, and develop recommendations to overcome existing barriers to current restoration efforts.
- Securing robust transboundary carnivore populations: Small-sized carnivores such as lynx, wolverine, and fisher are highly vulnerable to climate change. A future workshop will explore climate change adaptation strategies that can foster successful conservation and management of these transboundary populations.
- Prescribed fire: Climate change is already contributing to longer fire seasons and larger and more severe wildfires. Managers across the CCE agree on the need to reintroduce fire in forests that have missed fire cycles as a result of past fire suppression, but recognize significant challenges in doing so. A 2017 workshop will focus on identifying strategies to increase the amount of prescribed fire on the landscape, to avoid future catastrophic fires.

SUCCESSES TO DATE

In addition to prioritizing climate change adaptation strategies and actions on shared topics of concern, the Crown Adaptation Partnership has successfully leveraged funding from private foundations to support and complement conservation efforts occurring on public and private land. Additionally, in the US, the Obama Administration has recognized this innovative partnership explicitly during its designation of the Crown of the Continent Ecosystem as a focal landscape in its Resilient Lands and Waters Initiative.